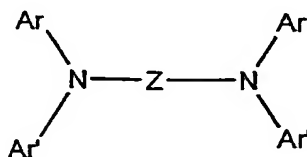


WHAT IS CLAIMED IS:

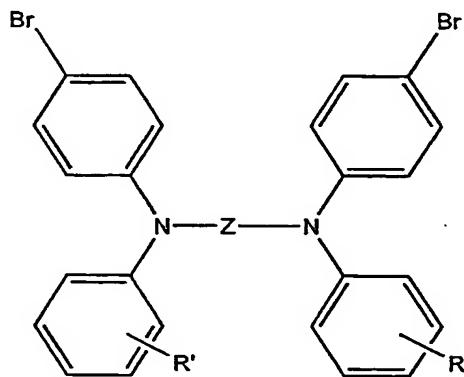
1. A halogenated bisdiarylamino polycyclic aromatic monomer represented by the



formula:

- wherein Ar and Ar' are each independently substituted or unsubstituted aryl groups and Z is a polycyclic arylene group, wherein at least one of the Ar' groups contains a haloaryl group.

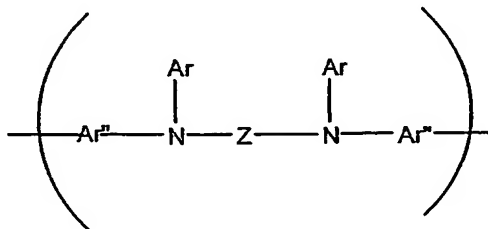
2. The monomer of Claim 1 wherein both of the Ar' groups is a haloaryl group and each of the Ar groups is substituted.
3. The monomer of Claim 2 which is represented by the following formula:



wherein each R' is independently a C₁-C₂₀ alkyl group, a carbo-C₁-C₂₀-alkoxy group, a C₁-C₂₀-alkoxy group, or a C₆-C₄₀ aryl group.

4. The monomer of Claim 3 wherein each R' is methyl, ethyl, carbomethoxy, carboethoxy, methoxy, ethoxy, or hexyloxy, and Z is selected from the group consisting of 2,1,3-benzothiadiazole-4,7-diyls, 9,9-disubstituted fluorene-2,7-diyls, naphthalene-1,4-diyls, anthracene-9,10-diyls, and quinoxaline-5,8-diyls.

5. A polymer comprising a backbone containing structural units of a bisdiarylamino polycyclic aromatic monomer as shown:



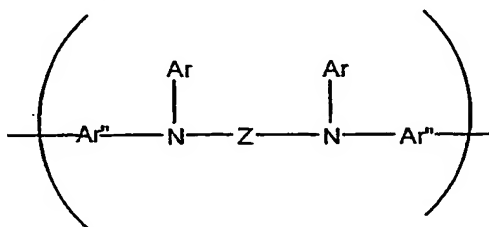
- 5 wherein each Ar is independently a substituted or unsubstituted aryl group; each Ar'' is a substituted or unsubstituted arylene group; and Z is a polycyclic arylene group.
6. The polymer of Claim 5 which further comprises structural units selected from the group consisting of 1,4-phenylenes, 1,3-phenylenes, 1,2-phenylenes, 4,4'-biphenylenes, naphthalene-1,4-diyls, naphthalene-2,6-diyls, furan-2,5-diyls, thiophene-2,5-diyls, 2,2'-bithiophene-5,5-diyls, anthracenes-9,10-diyls, 2,1,3-benzothiadiazoles-4,7-diyls, N-substituted carbazole-3,6-diyls, N-substituted carbazole-2,7-diyls, dibenzosilole-3,8-diyls, dibenzosilole-4,7-diyls, N-substituted-phenothiazine-3,7-diyls, N-substituted-phenoxazine-3,7-diyls, triarylamine-diyls including triphenylamine-4,4'-diyls, diphenyl-*p*-tolylamine-4,4'-diyls, and N,N-diphenylaniline-3,5-diyls, N,N,N',N'-tetraaryl-1,4-diaminobenzene-diyls, N,N,N',N'-tetraarylbenzidine-diyls, arylsilane-diyls, and 9,9-disubstituted fluorenes-2,7-diyls.
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7. The polymer of Claim 5 wherein the polymer backbone further comprises structural units selected from the group consisting of 9,9-bis(4-hexyloxyphenyl)fluorene-2,7-diyl, 9,9-dioctylfluorene-2,7-diyl, 9,9-dihexylfluorene-2,7-diyl, and 2,1,3-benzothiadiazole-4,7-diyl.
- 20
8. The polymer of Claim 5 wherein Ar is selected from the group consisting of methylphenyl, ethylphenyl, carbomethoxyphenyl, carboethoxyphenyl, methoxyphenyl, ethoxyphenyl, and hexyloxyphenyl; Ar'' is phenylene; and Z is selected from the group consisting of 2,1,3-benzothiadiazole-4,7-diyls, 9,9-disubstituted fluorene-2,7-diyls, naphthalene-1,4-diyls, anthracene-9,10-diyls, and quinoxaline-5,8-diyls.

9. The polymer of Claim 8 wherein Ar is *p*-methylphenyl and Z is selected from the group consisting of 2,1,3-benzothiadiazole-4,7-diyl, 9,9-bis(4-hexyloxyphenyl)fluorene-2,7-diyl, 9,9-dioctylfluorene-2,7-diyl, 9,9-dihexylfluorene-2,7-diyl, naphthalene-1,4-diyl, anthracene-9,10-diyl, and quinoxaline-5,8-diyl.

10. A composition comprising a mixture of the polymer of Claim 5 and a solvent for the polymer.

11. A composition comprising a mixture of the polymer of Claim 5 and another polymer.

12. An electronic device comprising a thin film of a polymer disposed between an anode and a cathode, which polymer has structural units as shown:



wherein each Ar is independently a substituted or unsubstituted aryl group; each Ar'' is a substituted or unsubstituted arylene group; and Z is a polycyclic arylene group.

13. The electronic device of Claim 12 wherein the polymer further includes structural units of 1,4-phenylenes, 1,3-phenylenes, 1,2-phenylenes, 4,4'-biphenylenes, naphthalene-1,4-diyls, naphthalene-2,6-diyls, furan-2,5-diyls, thiophene-2,5-diyls, 2,2'-bithiophene-5,5-diyls, anthracenes-9,10-diyls, 2,1,3-benzothiadiazoles-4,7-diyls, N-substituted carbazole-3,6-diyls, N-substituted carbazole-2,7-diyls, dibenzosilole-3,8-diyls, dibenzosilole-4,7-diyls, N-substituted-phenothiazine-3,7-diyls, N-substituted-phenoxazines-3,7-diyls, triarylamine-diyls including triphenylamine-4,4'-diyls, diphenyl-*p*-tolylamine-4,4'-diyls, and N,N-diphenylaniline-3,5-diyls, N,N,N',N'-tetraaryl-1,4-diaminobenzene-diyls, N,N,N',N'-tetraarylbenzidine-diyls, arylsilane-diyls, and 9,9-disubstituted fluorenes-2,7-diyls.

14. The device of Claim 13 wherein Ar is *p*-methylphenyl, Ar'' is phenyl, and Z is selected from the group consisting of 2,1,3-benzothiadiazole-4,7-diyl, 9,9-bis(4-

hexyloxyphenyl)fluorene-2,7-diyl, 9,9-dioctylfluorene-2,7-diyl, 9,9-dihexylfluorene-2,7-diyl, naphthalene-1,4-diyl, anthracene-9,10-diyl, and quinoxaline-5,8-diyl.